Name_____   RollNo_____

JAIPURIA
INSTITUTE OF MANAGEMENT
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JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA
PGDM / PGDM (M) / PGDM (SM)
FOURTH TRIMESTER (Batch 2023-25)
END TERM EXAMINATIONS, SEPTEMBER 2024

Course Name	Business Intelligence for Decision Making	Course Code	20823
Max. Time	**2 hours**	Max. Marks	**40 MM**

SET A

GENERAL INSTRUCTIONS:

a) Create a separate folder to save all files (Power BI, SQL scripts, .txt, Excel).

b) **DO NOT DELETE ANY ROW or COLUMN from any of the datasets**

c) Save the Question Paper document as rollno_name.doc. You will **UPLOAD only** your Word document with all the answers. Answer each question by fetching insights using SQL or visualizations from Power BI as mentioned in the paper.

d) For **Q1**: Under each question, paste your SQL query and include a snapshot of the result set.

e) For **Q2**: Include a snapshot of your Power BI visual under the question. Clearly state your inference below the visual (this will be graded).

f) Ensure all snapshots are clear and placed under the corresponding question.

Save SQL Script:

g) Add comments in your SQL script to indicate the question number and question text.

h) Place each SQL query directly beneath its corresponding comment.

Save Power BI:

i) Create separate sheets in Power BI for each question, labeling them with the question number.

Q1: Using the datasets (*passenger.xlsx* and *satisfaction.xlsx*) in SSMS as tables for analysis.   **(5*3 marks)**

A. Demonstrate the result set showing average delays by passenger demographics (gender, age, customer type). What operational changes could be implemented to mitigate these delays? (2+1)

B. Identify which passenger classes have the highest number of travellers. How will you develop targeted marketing campaigns to engage the most common passenger classes.

C. Analyze, what is the average rating of in-flight entertainment by gender? Which gender exhibits higher satisfaction with in-flight entertainment? Are there significant differences in the average ratings that could inform targeted improvements or marketing strategies?

D. Compare the average rating of Ease of Online Booking between First-Time and Returning Customers? Which category requires more emphasis for corrective measures based on above analysis?

E. Analyze what is the average travel distance for different genders based on passenger data? Suggest marketing campaigns or strategies to better appeal to the genders that tend to travel longer distances?

Q2:   Using all the datasets (passenger.xlsx, satisfaction.xlsx, and booking.txt), create visualizations in Power BI to analyze and answer the given questions.   **(25 marks)**

   i. Which class is more popular?   (3 marks)
  ii. Determine which Gender to focus on for improved frequent flyer discounts.
                                                 (3 marks)
 iii. Identify which 3 parameters have the lowest average score among all factors affecting customer satisfaction. Suggest how can the organization prioritize improvements in these areas.   (3 marks)
  iv. Identify the parameter on which people are most satisfied.   (3 marks)
   v. How popular is our flight among customers. Are customers choosing to rebook with us after their initial flight?   (3 marks)
  vi. What is the percentage of bookings made through the most popular source? How can the organization leverage the popularity of these booking sources?
                                                 (3 marks)
 vii. Analyze what are the popular trends in payment types and how do they relate to customer demographics?   (3 marks)
viii. How do various customer segments respond to promotional offers based on discount categories?   (1 marks)
  ix. Analyze how does the average distance travelled vary by gender, customer type, and class? Create a card to display the average distance travelled and use slicers to filter the data by gender, customer type, and class.   (3 marks)